QPL-50884-44 15-Jun-00 SUPERSEDING QPL-50884-43 06-Mar-00

# QUALIFIED PRODUCTS LIST PRODUCTS QUALIFIED UNDER MILITARY SPECIFICATION MIL-P-50884 PRINTED WIRING, FLEXIBLE AND RIGID-FLEX GENERAL SPECIFICATION FOR

This list has been prepared for use by or for the Government in the acquisition of Printed Wiring, Flexible and Rigid Flex, to the performance requirements of Specification MIL-P-50884. This listing is not intended to and does not connote endorsement by the Department of Defense. All manufacturers listed herein have been qualified under the requirements as specified in the latest effective issue of the applicable specification. This list is subject to change without notice; revision or amendment of this list will be issued as necessary. The listing of a product does not release the supplier from compliance with the specification requirements.

THE ACTIVITY RESPONSIBLE FOR THIS QPL IS THE DEFENSE SUPPLY CENTER COLUMBUS (DSCC-VQ), COLUMBUS, OH 43216-5000, telephone (614) 692-0617.

#### **Extent of Qualification**



Paragraph 4.5.3 of MIL-P-50884 extends qualification for a particular type to cover all conductor patterns of that type produced. Qualification of type 4 products shall be extended to cover all other types. Qualification of type 3 products shall be extended to cover types 2 and 1. Qualification of type 2 products shall be extended to cover type 1. Qualification of types 1 and 5 shall apply only to that type. Qualification of any type shall be extended to cover the approved type with a stiffener or solder mask.

# NOTES:

- a. The qualification expiration date is the last six digits of the QRN (e.g. mm/dd/yy).
- b. An asterisk (\*) adjacent to the QRN denotes the product was tested for and meets the etchback requirements.
- c. A plus (+) adjacent to the QRN denotes that the product tested is manufactured with a flexible metal-clad dielectric covered under a slash sheet(s) other than /1 through /4 of IPC-FC-241. The procuring activity must contact the respective QPL manufacturer to insure that the material used in the manufacturer's process meets their drawing and purchase order requirements. The manufacturer shall be able to provide a Notification of Qualification letter(s) and other official QPL status letters which specify the alternate slash sheet(s) of IPC-FC-241 which may be used for military production.

SUPPLIER'S NAME (ADDRESS ON LAST PAGE)	QUALIFICATION REFERENCE NUMBER AND EXPIRATION DATE (MM/DD/YY)	SUPPLIER'S NAME (ADDRESS ON LAST PAGE)	QUALIFICATION REFERENCE NUMBER AND EXPIRATION DATE (MM/DD/YY)
TYPE 2		Flexible Circuits, Inc.	50884-295-102300*+
Advanced Circuit Technology, Inc.	50884-033-121501	Graphic, Plc.	50884-U024-121302*+
IPC Cal Flex, Inc.	50884-234-120102	Hamby Corporation	50884-224-010702*+
Multi Fineline Electronix. Inc.	50884-273-042201	Johns Hopkins University	50884-046-030103*+
Strataflex Canada Corp.	, , , , , , , , , , , , , , , , , , , ,		50884-013-030103*+
Tyco Printed Circuit Group (Santa C		Lockheed Martin	50884-210-102902*+
, , , , , , , , , , , , , , , , , , , ,	,	Lockheed Martin Federal Systems	50884-210-102902*+
TYPE 4 ADHESIVELESS		Minco Products Company	50884-115-102202*+
Accurate Engineering Corp.	50884-061-100801*+	Northrop Gruman Corp.	50884-304-060401*+
Basic Electronics, Inc.	50884-157-101902*+	P.C.B., Ltd.	50884-IL004-012503*
CIMULEC	50884-126-012002+	Parlex Corp.	50884-281-082000*+
Cirtech	50884-143-090902*+	Pentadyne/Pentaflex, Inc.	50884-207-090102*+
Cosmotronic Corp.	50884-011-042301*+	Pioneer Circuits, Inc.	50884-035-012701*+
Delta Circuit Technology	50884-234-021002*+	Precision Diversified Industries	50884-126-031701*+
Dynaco Acquisition Corp.	50884-036-013001*+	Printca AS	50884-007-070102*+
Eltek, Ltd.	50884-IL005-040703*+	Printed Circuits, Inc.	50884-180-101700*+
Flex-Link Products, Inc.	50884-212-031601*+	Proto Circuit, Inc.	50884-099-041401*+
		-1-	30004-099-041401 +
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SUPPLIER'S NAME NI (ADDRESS ON LAST PAGE)	QUALIFICATION REFERENCE JMBER AND EXPIRATION DATE (MM/DD/YY)	SUPPLIER'S NAME (ADDRESS ON LAST PAGE)	QUALIFICATION REFERENCE NUMBER AND EXPIRATION DATE (MM/DD/YY)
Ruwel-Werke/Werk Schoeller	50884-031-111601*+	,	, ,
Sovereign Circuits, Inc.	50884-261-111502*+		
Speedy Circuits	50884-042-031301*+		
Strataflex Canada Corp.	50884-98205-101601*+		
Teledyne Electronic Technologies	50884-125-050302*+		
Tyco Printed Circuit Group (Manchester)	50884-266-012603*+		
Tyco Printed Circuit Group (Santa Clara D	v) 50884-063-041302*+		
Tyco Printed Circuits Group (Austin)	50884-062-030901*+		
TYPE 4 WITH AD	HESIVES		
Basic Electronics, Inc.	50884-158-090602*		
Cosmotronic Corp.	50884-143-101500*		
Dyconex, Ltd.	50884-009-072400		
Dynaco Acquistion Corp.	50884-164-062502*		
Flex-Link Products, Inc.	50884-211-102800*		
Flexible Circuits, Inc.	50884-142-071001*		
Flextronic, Ltd.	50884-U023-030503		
Futura Circuits Corp.	50884-205-081800*		
General Dynamics	50884-085-071000*		
Graphic Research, Inc.	50884-075-080601*		
Graphico Electronics Group	50884-97503-070701*		
Hamby Corporation	50884-115-070601*		
Hans Brockstedt GmbH	50884-ZL5/99-062502*		
Lockheed Martin	50884-210-102902*		
Lockheed Martin Federal Systems	50884-228-092002*		
Minco Products Company	50884-114-102202*		
Northrop Gruman Corp.	50884-303-012801		
P.C.B., Ltd.	50884-IL004-012503*		
Packard-Hughes Interconnect	50884-254-121002*		
Parlex Corp.	50884-039-030901*		
Pentadyne/Pentaflex, Inc.	50884-206-020303*		

TYPES 1 & 5 ONLY

50884-034-012101\*

50884-127-070200

50884-015-032301\*

50884-255-103001\*

50884-123-100701\*

50884-190-100802\*

50884-030-120401\*

50884-138-072800\*

50884-99138-082502

50884-003-111702\*

50884-226-101402\*

Advanced Circuit Technology, Inc. 50884-251-093000

Pioneer Circuits, Inc.

Printed Circuits, Inc.

Proto Circuit, Inc.

Rigiflex Technology

Starflex Corp.

Precision Diversified Industries

Racaar Circuit Industries, Inc.

Ruwel-Werke/Werk Schoeller

Teledyne Electronic Technologies

Tyco Printed Circuits Group (Manchester)

Strataflex Canada Corp.

# **PART II**

The products listed herein are reciprocal based on the NATO Standardization Agreement (STANAG) 4093 or International Standardization Agreements. The foreign-made products listed in Part II of this QPL have been certified by the authorized inspec-torate of the foreign government and by the manufacturer, to be manufactured, tested and qualified in conformance with the applicable foreign specification identified with each product. The products listed in Part II are generally suitable for the function applications ascribed to the U.S.-specified products listed in Part I of the QPL; however, the functional performance limits, reliability and other design characteristics of the products listed in Part II may differ somewhat from those of the U.S.-specified products listed in Part I of the QPL. User agencies, industrial equipment designers, and manufacturers are wholly responsible for examining and evaluating the applicable foreign specifications, design data and product qualification test data to determine the technical suitability of the functional performance characteristics of those products for use in components and equipment specified under U.S. Department of Defense procurement contracts. Products listed in Part II of this QPL should not be selected for use in equipment or systems that are beyond the prototype design and development phase.

NATIONAL DEVICE DESIGNATION	TEST REPORT/ REFERENCE NUMBEF	NATIONAL QPL	SUPPLIER'S NAME (ADDRESS ON LAST PAGE)	
TYPE 4	FTB 003/01 Pt. 2	BS-9764-9765-9766	Flexible Technology, Ltd.	

Manufacturer: Accurate Engineering Corp. (CAGE Code: 1W538)

Location: 8710 Telfair Avenue, Sun Valley, CA 91352, US

Plant Location: Same Address as Manufacturer

Manufacturer: Advanced Circuit Systems, Inc. (CAGE Code: 0ASS4)

Location: 174 North Main Street, Franklin, NH 03235-1020, US

Plant Location: Same Address as Manufacturer

Manufacturer: Advanced Circuit Technology (CAGE Code: 57034)
Location: 118 Northeastern Boulevard, Nashua, NH 03062-0547, US

Plant Location: Same Address as Manufacturer

Manufacturer: Basic Electronics, Inc. (CAGE Code: 57357) Location: 11371 Monarch Street, Garden Grove, CA 92841, US

Plant Location: Same Address as Manufacturer

Manufacturer: Cosmotronic Corp. (CAGE Code: 63695) Location: 16721 Noyes Avenue, Irvine, CA 92714-5176, US

Plant Location: Same Address as Manufacturer

Manufacturer: Delta Circuits Technology (CAGE Code: 8U401)

Location: 16028 Arminta Street, Van Nuys, CA 91342, US

Plant Location: Same Address as Manufacturer

Manufacturer: Dyconex, Ltd. (CAGE Code: 0S3N4)

Location: Schaffhauserstrasse 580, CH-8052 Zurich, Switzerland

Plant Location: Same Address as Manufacturer

Manufacturer: Dynaco Acquisition Corp. (CAGE Code: 61642) Location: 1000 South Priest Drive, Tempe, AZ 85281-5238, US

Plant Location: Same Address as Manufacturer

Manufacturer: Eltek, Ltd. (CAGE Code: S4451)

Location: P.O. Box 159, Sgoola Industrial Park, 49101 Petach - Tikva, Israel

Plant Location: Same Address as Manufacturer

Manufacturer: Flex-Link Products, Inc. (CAGE Code: 6Z867) Location: 599 Fourth Street, San Fernando, CA 91340-2521, US

Plant Location: Same Address as Manufacturer

Manufacturer: Flexible Circuits, Inc. (CAGE Code: 22928)
Location: Paul Valley Industrial Park, Warrington, PA 18976-2580, US

Plant Location: Same Address as Manufacturer

Manufacturer: Flextronic, Ltd. (CAGE Code: 0UH63)

Location: Terminus Road, Chichester, West Sussex, P019 2UA, UK

Plant Location: Same Address as Manufacturer

Manufacturer: Futura Circuits Corp. (CAGE Code: 0CA49)
Location: 11950 28th Street, N., St. Petersburg, FL 33716-1816, US

Manufacturer: General Dynamics (CAGE Code: 27963)

Location: Information Systems, 3101 East 80th Street, Bloomington, MN 55425-1640, US

Plant Location: Same Address as Manufacturer

Manufacturer: Graphic Research, Inc. (CAGE Code: 5K529)
Location: 9334 Mason Avenue, Chatsworth, CA 91311-5201, US

Plant Location: Same Address as Manufacturer

Manufacturer: Graphic, Plc. (CAGE Code: U4538)

Location: Lords Meadow Industrial Estate, Crediton, Devon, EX17 1EU, UK

Plant Location: Same Address as Manufacturer

Manufacturer: Graphico Electronics Group (CAGE Code: 37442)
Location: 1100 Bellamy Road, Sacrborough, Ontario M1H 1H2, Canada

Plant Location: Same Address as Manufacturer

Manufacturer: Hamby Corporation (CAGE Code: 07284)
Location: 27704 Avenue Scott, Valencia, CA 91355-1218, US

Plant Location: Same Address as Manufacturer

Manufacturer: Hans Brockstedt GmbH (CAGE Code: C4831)

Location: Lieterplattenschnelldienst, Kieler Strabe 120, 24119 Kronshagen/Kiel, Germany

Plant Location: Same Address as Manufacturer

Manufacturer: IPC Cal Flex, Inc. (CAGE Code: 1EB30) Location: 1255 Knollwood Circle, Anaheim, CA 92801, US

Plant Location: Same Address as Manufacturer

Manufacturer: Johns Hopkins University (CAGE Code: 88898)

Location: Applied Physics Laboratory, John Hopkins Road, Laurel, MD 20723-6099, US

Plant Location: Same Address as Manufacturer

Manufacturer: Key Circuits (CAGE Code: 1MMS0)

Location: 11140 Talbert Avenue, Fountain Valley, CA 92708, US

Plant Location: Same Address as Manufacturer

Manufacturer: Lockheed Martin (CAGE Code: 04939) Location: 498 Oak Road, Ocala, FL 34472-3001, US

Plant Location: Same Address as Manufacturer

Manufacturer: Lockheed Martin Federal Systems (CAGE Code: 03640)

Location: 1801 State Route 17C, Owego, NY 13827, US

Plant Location: Same Address as Manufacturer

Manufacturer: Minco Products Company (CAGE Code: 09359)
Location: 7300 Commerce Lane, Minneapolis, MN 55432-3177, US

Plant Location: Same Address as Manufacturer

Manufacturer: Multi Fineline Electronix, Inc. (CAGE Code: 43181)
Location: 1301 N. Dynamics Street, Anaheim, CA 92806-1901, US

Manufacturer: Northrop Gruman Corp. (CAGE Code: 17920)

Location: Defense Systems Division, 600 Hicks Road, Rolling Meadows, IL 60008-1098, US

Plant Location: Same Address as Manufacturer

Manufacturer: P.C.B., Ltd. (CAGE Code: S5725)
Location: P.O. Box 631, Migdal Haemek, 10556, Israel

Plant Location: Same Address as Manufacturer

Manufacturer: Packard-Hughes Interconnect (CAGE Code: 53669)
Location: 17150 Von Karman Avenue, Irvine, CA 92614-9998, US

Plant Locations:

Same Address as Manufacturer
 14532 Blvd. Pacifico, Tijuana, Mexico

Manufacturer: Parlex Corp. (CAGE Code: 18377)
Location: 145 Milk Street, Methuen, MA 01844-4699, US

Plant Location: Same Address as Manufacturer

Manufacturer: Pentadyne/Pentaflex, Inc. (CAGE Code: 0H0H9)
Location: 711 Fee Ana Street, Placentia, CA 92670-2108, US

Plant Location: Same Address as Manufacturer

Manufacturer: Pioneer Circuits, Inc. (CAGE Code: 65723)
Location: 3010 E. Shannon Street, Santa Ana, CA 92704-6387, US

Plant Location: Same Address as Manufacturer

Manufacturer: Precision Diversified Industries (CAGE Code: 65722)
Location: 14755 27th Avenue North, Plymouth, MN 55447-4809, US

Plant Location: Same Address as Manufacturer

Manufacturer: Printca A.S (CAGE Code: R2180) Location: Svendborgvej 3, Aalborg, OST Denmark

Plant Location: Same Address as Manufacturer

Manufacturer: Printed Circuits, Inc. (CAGE Code: 65114)
Location: 1200 West 96th Street, Minneapolis, MN 55431-2606, US

Plant Location: Same Address as Manufacturer

Manufacturer: Proto Circuit, Inc. (CAGE Code: 7Z463) Location: 7 Ascot Parkway, Cuyahoga Falls, OH 44223, US

Plant Location: Same Address as Manufacturer

Manufacturer: Racaar Circuit Industries, Inc. (CAGE Code: 58521)

Location: 9225-F Alabama Avenue, Chatsworth, CA 91311, US

Plant Location: Same Address as Manufacturer

Manufacturer: Rigiflex Technology, Inc. (CAGE Code: 0XBX9) Location: 3310 W. Harvard Street, Santa Ana, CA 72704-3920, US

Plant Location: Same Address as Manufacturer

Manufacturer: Ruwel Werke/Werk Schoeller (CAGE Code: C2877)

Location: Spezialfabrik Furleiterplaten, Werk Schoeller, Marburger Strasse 65, D-35083 Wetter/Hassen, Germany

Manufacturer: Sovereign Circuits, Inc. (CAGE Code: 0GN71) Location: P.O. Box 216, North Jackson, OH 44451-0216, US

Plant Location: Same Address as Manufacturer

Manufacturer: Speedy Circuits (CAGE Code: 66982)

Location: Division of PJC Technologies, Inc., 5332 Commercial Drive, Huntington Beach, CA 92649-1252, US

Plant Location: Same Address as Manufacturer

Manufacturer: Starflex, Inc. (CAGE Code: 07EU8)
Location: 52 Meadowcroft Street, Lowell, MA 01852-9998, US

Plant Location: Same Address as Manufacturer

Manufacturer: Strataflex Canada Corp. (CAGE Code: 38661)

Location: Division of Strataflex Corp., 11 Dohme Avenue, Toronto, Ontario M4B 1Y7, Canada

Plant Location: Same Address as Manufacturer

Manufacturer: Teledyne Electronic Technologies (CAGE Code: 22958)
Location: P.O. Box 68, 110 Lowell Road, Hudson, NH 03051-0068, US

Plant Location: Same Address as Manufacturer

Manufacturer: Tyco Printed Circuit Group (CAGE Code: 65416)

Location: Manchester Division, P.O. Box 60, 50 Harrison Street, Manchester, CT 06040-0060, US

Plant Location: Same Address as Manufacturer

Manufacturer: Tyco Printed Circuits Group (CAGE Code: 65916)

Location: Santa Clara Division, 400 Mathew Street, Santa Clara, CA 95050, US

Plant Location: Same Address as Manufacturer

Manufacturer: Tyco Printed Circuits Group (CAGE Code: 96214)
Location: Austin Division, 12501 Research Blvd., Austin, TX 78759, US